

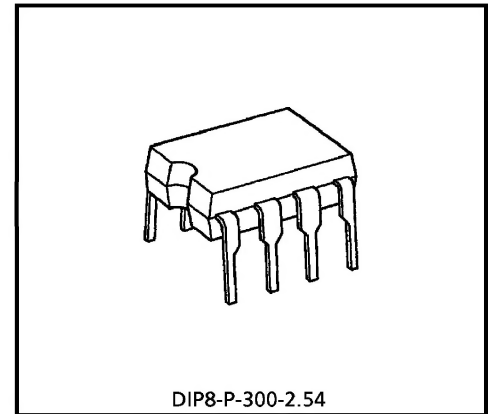
# TD6127BP

## ECL PRESCALLER FOR COMMUNICATIONS RADIO

TD6127BP is a 2 modulus prescaler developed for communications radio of PLL frequency synthesizer type. This is suitable for mobile radio telephone and personal communications radio etc.

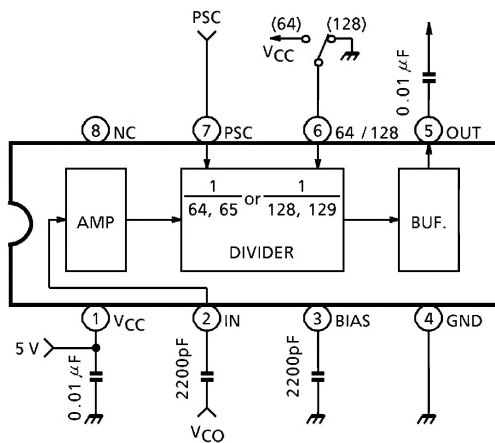
### FEATURES

- Maximum operating frequency is 1 GHz.
- 2 modulus prescaler :  $N = 64/65$  or  $N = 128/129$
- Input voltage sensitivity is  $50 \text{ mV}_{\text{rms}}$ .
- The package is DIP 8 pins.

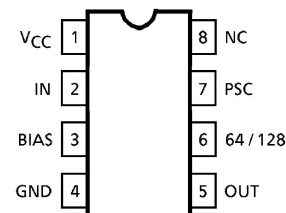


Weight : 0.5 g (Typ.)

### BLOCK DIAGRAM



### PIN CONNECTION (TOP VIEW)



980910EBA2

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**PIN FUNCTION**

PIN No.	SYMBOL	FUNCTION	REMARKS
1	V <sub>CC</sub>	Power supply terminal	—
2	IN	Input terminal of local oscillator	—
3	BIAS	Bias capacitance terminal	—
4	GND	Earth terminal	—
5	OUT	Output terminal	—
6	64 / 128	Dividing mode selection terminal "H" level : 64, 65 "L" level : 128, 129	—
7	PSC	2 modulus control terminal "H" level : N "L" level : N + 1	—
8	NC	Not connected	—

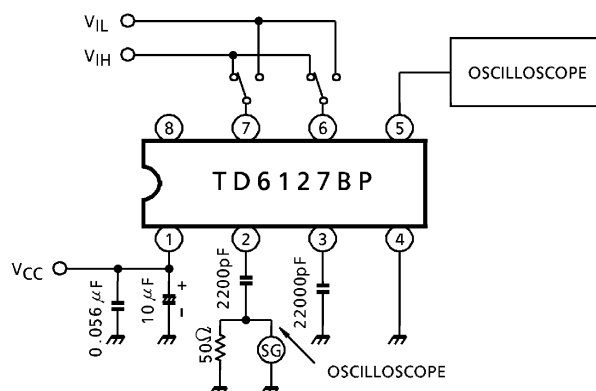
**MAXIMUM RATINGS** ( $T_a = 25^\circ\text{C}$ )

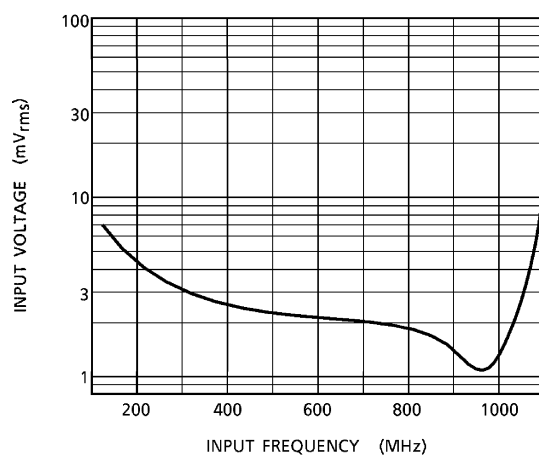
CHARACTERISTIC	SYMBOL	RATING	UNIT
Power Supply Voltage	$V_{CC}$	6.5	V
Power Dissipation	$P_D$	450	mW
Input Voltage	$V_{in}$	$-0.3 \sim V_{CC} + 0.3$	V
Operating Temperature	$T_{opr}$	$-30 \sim 85$	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	$-55 \sim 150$	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS**

(Unless otherwise specified,  $V_{CC} = 4.5 \sim 5.5\text{ V}$ ,  $T_a = -30 \sim 85^\circ\text{C}$ ,  $f_{IN} = 400 \sim 1000\text{ MHz}$ )

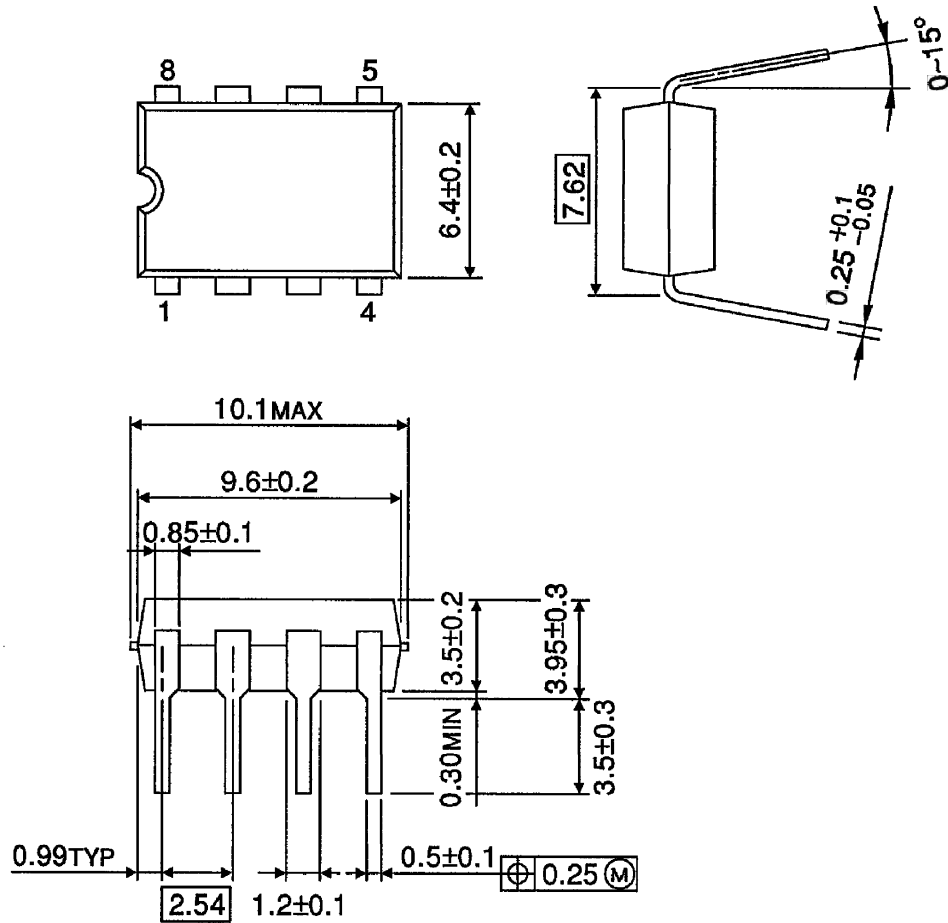
CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	$V_{CC}$	—	—	4.5	5.0	5.5	V
Supply Current	$I_{CC}$	—	$V_{CC} = 5.0\text{ V}$	—	40	70	mA
Operating Frequency Range	$f_{IN}$	—	—	400	—	1000	MHz
Input Voltage Range	$V_{IN}$	—	—	50	—	250	mV <sub>rms</sub>
Output Amplitude	$V_{OUT}$	—	—	1.0	1.2	—	V <sub>p-p</sub>
Input Voltage	"L" Level	$V_{IL}$	—	PSC	0	$V_{CC} \times 0.3$	V
Input Current	"H" Level	$V_{IH}$	—	PSC	$V_{CC} \times 0.3$	$V_{CC}$	V
	"L" Level	$I_{IL}$	—	PSC $V_{CC} = 5.0\text{ V}$ , $V_{IL} = 1.0\text{ V}$	-700	-200	$\mu\text{A}$
	"H" Level	$I_{IH}$	—	PSC $V_{CC} = 5.0\text{ V}$ , $V_{IH} = 4.0\text{ V}$	-200	-50	$\mu\text{A}$

**TEST CIRCUIT** (Input voltage sensitivity)

**INPUT VOLTAGE SENSITIVITY** $(V_{CC} = 5.0\text{ V}, T_a = 25^\circ\text{C})$ 

OUTLINE DRAWING  
DIP8-P-300-2.54

Unit : mm



Weight : 0.5 g (Typ.)